



# Univar Portland - NW Yeon Site

Bi-Monthly Meeting – February 12, 2019



# Meeting Agenda

Safety Share

ICM Operations and Performance

Gravel Zone Investigation

1,4-Dioxane Sampling

Stormwater Source Control Measure Work Plan

EPA Comments on 2018 Q4 Progress Report

Financial Assurance

Next Steps and Action Items

Adjourn

# Safety Share

## Winter Weather and ICM Operations

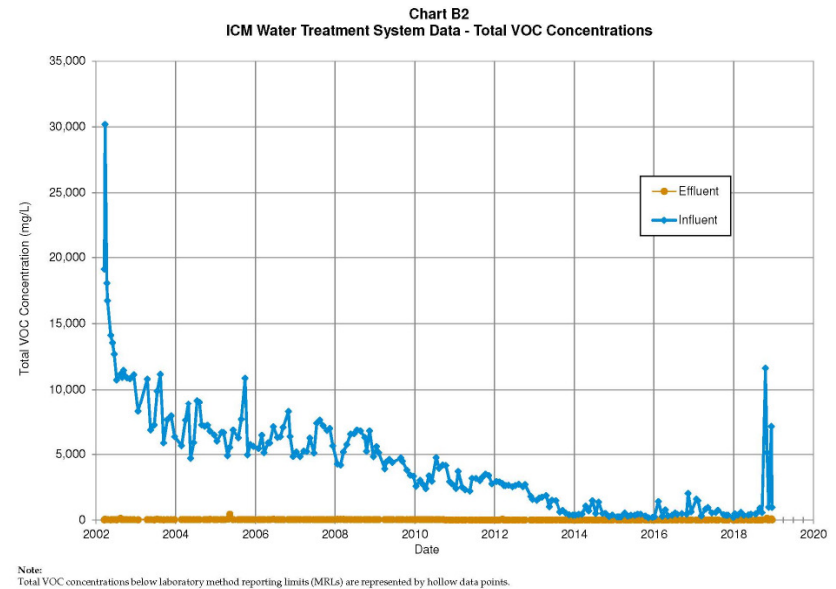
Routine maintenance completed on air stripper Friday, 2/8. System was shutdown through weekend to avoid potential weather related issues.

- Best management practice is to avoid system restarts on Fridays.
- Sub-zero temperature related maintenance.
- Hazardous driving conditions results in restricted travel.



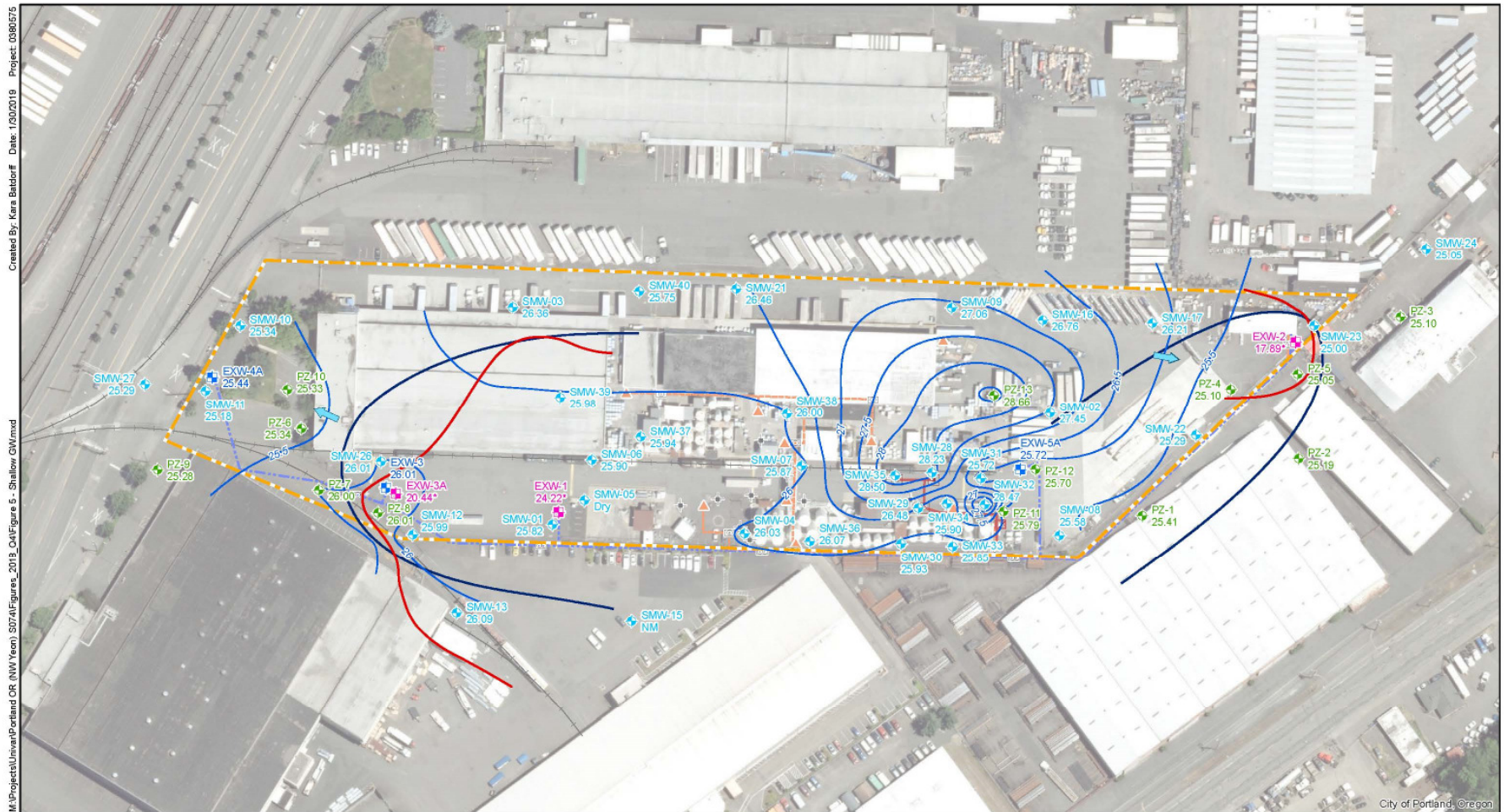
# ICM Operations and Performance

- › Transition pumping scenario in progress. Currently operating all EXWs.
- › WTS compliance in compliance December 2018 and January 2019.
- › Improved hydraulic capture at north and south property boundaries.





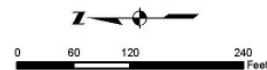
# ICM Operations and Performance



Created By: Kara Baldorf Date: 1/30/2019 Project: 080575  
M:\Projects\Univar\Portland OR (NW Yeon) S074\Figures\_2018\_Out\Figure 5 - Shallow GW.mxd

## Legend

- |                                      |                          |                             |                                      |
|--------------------------------------|--------------------------|-----------------------------|--------------------------------------|
| Shallow Zone Monitoring Well         | Target Capture Zone      | SVE Condensate Sump         | Approximate Univar Property Boundary |
| Piezometer                           | Interpreted Capture Zone | Pipe Cleanout Vault         |                                      |
| Active Extraction Well               | SVE Well                 | LNAPL Pilot Test Piping     |                                      |
| Inactive Extraction Well             | LNAPL Pilot Test Well    | Groundwater Conveyance Pipe |                                      |
| Estimated Groundwater Flow Direction | SVE Conveyance Pipe      | Railroad Track              |                                      |
|                                      | Vapor Monitoring Probe   |                             |                                      |



Aerial Image - City of Portland, Summer 2017

Note:  
- All elevations given in feet above City of Portland Datum.  
- NM: Not measured  
- '': Not used in contouring

**Figure 5**  
**Shallow Aquifer Groundwater**  
**Conditions - 21 December 2018**  
**Univar USA Inc., NW Yeon Ave**  
**Portland, Oregon**

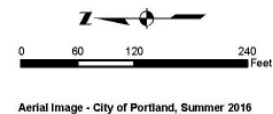


# Gravel Zone Investigation



## Legend

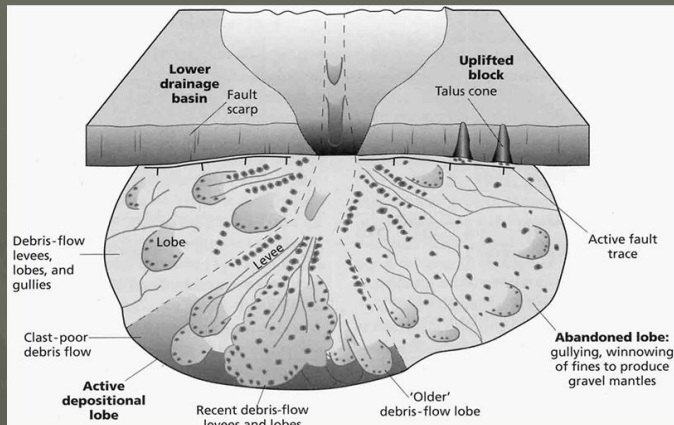
- |                                |  |                          |  |
|--------------------------------|--|--------------------------|--|
| —+— Cross Sections             | ⬢ Inactive Extraction Well             | ▲ SVE Well               | — LNAPL Pilot Test Piping              |
| ⬢ Shallow Zone Monitoring Well | ⬢ Abandoned Monitoring Well            | ⬢ LNAPL Pilot Test Well  | --- Groundwater Conveyance Pipe        |
| ⬢ Deep Zone Monitoring Well    | ⬢ Gravel Zone Monitoring Well          | ⬢ Vapor Monitoring Probe | --- SVE Conveyance Pipe                |
| ⬢ Piezometer                   | ⬢ Proposed Gravel Zone Monitoring Well | ⬢ SVE Condensate Sump    | ⬢ LNAPL Recovery Equipment Pad         |
| ⬢ Active Extraction Well       | ⬢ Historical Geoprobe                  | ⬢ Pipe Cleanout Vault    | ⬢ Approximate Univar Property Boundary |
|                                |  | ⬢ Pipe Junction Vault    |  |



**DRAFT Figure 3**  
Groundwater Monitoring Well Network  
Univar USA Inc, NW Yeon Ave  
Portland, Oregon

# Gravel Zone Investigation

## Debris-flow-dominated fans



## Debris-flow fan – idealised long-section

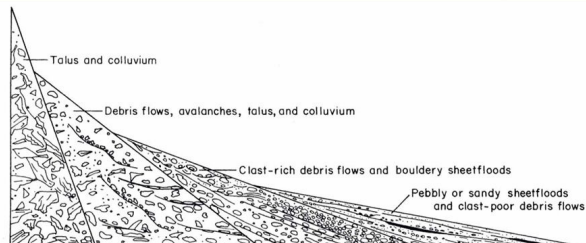
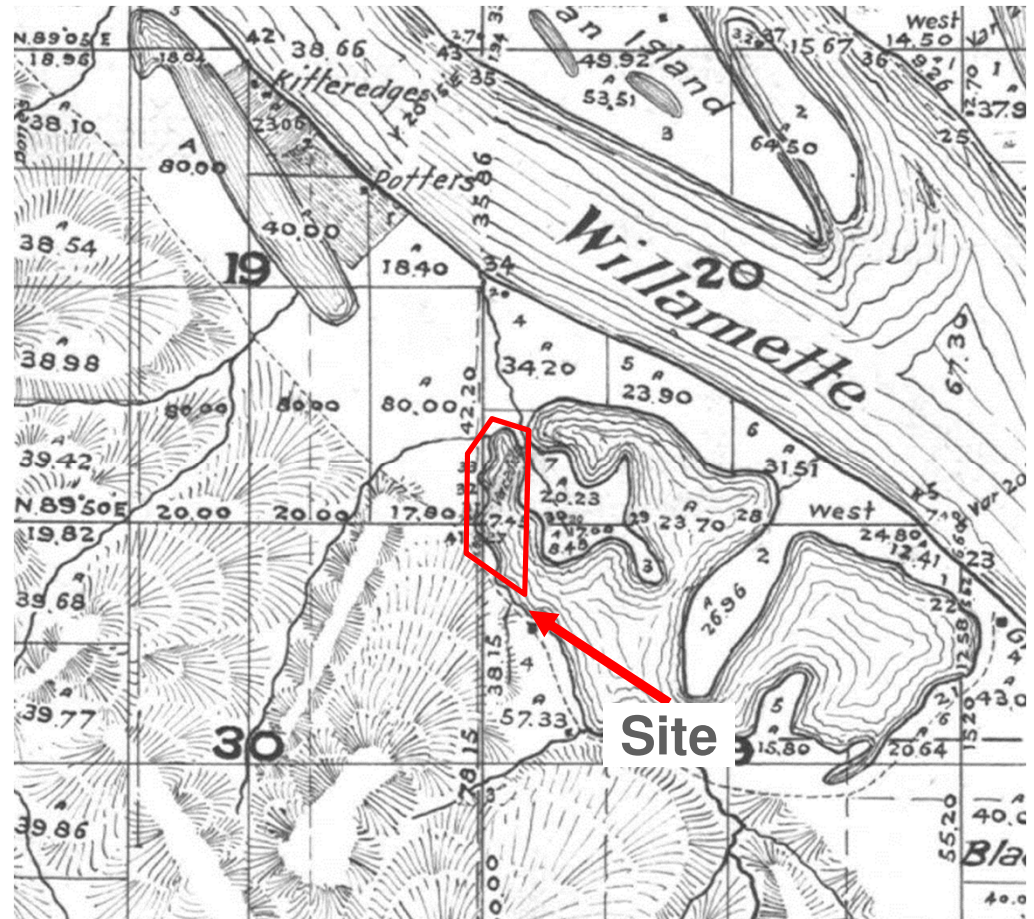
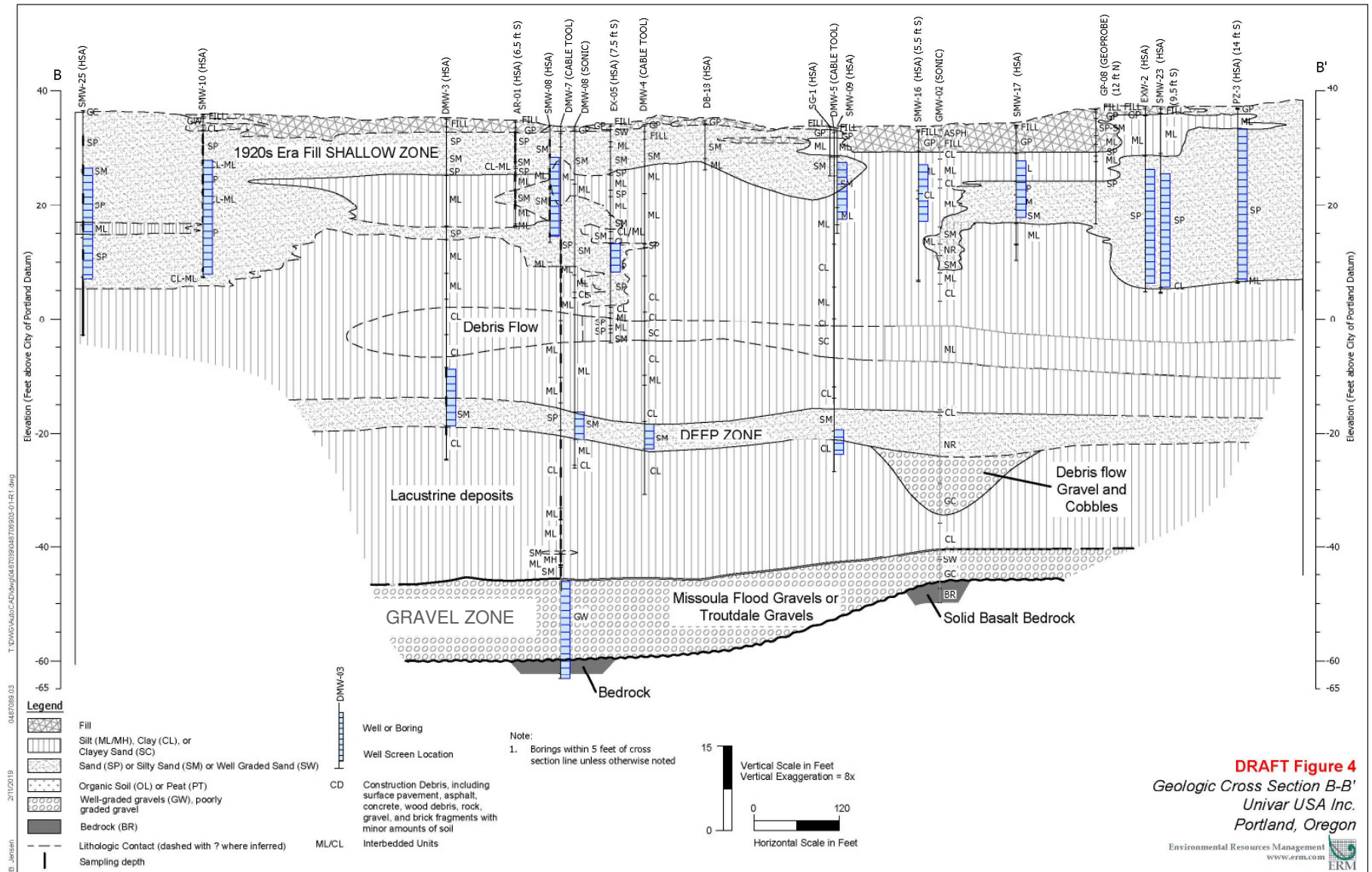


Fig. 3.7. Internal facies partitioning within debris-flow fans. Note decreasing clast size, improved sorting, and development of stratification downflow. (Derived from Blair and McPherson 1993)





# Gravel Zone Investigation

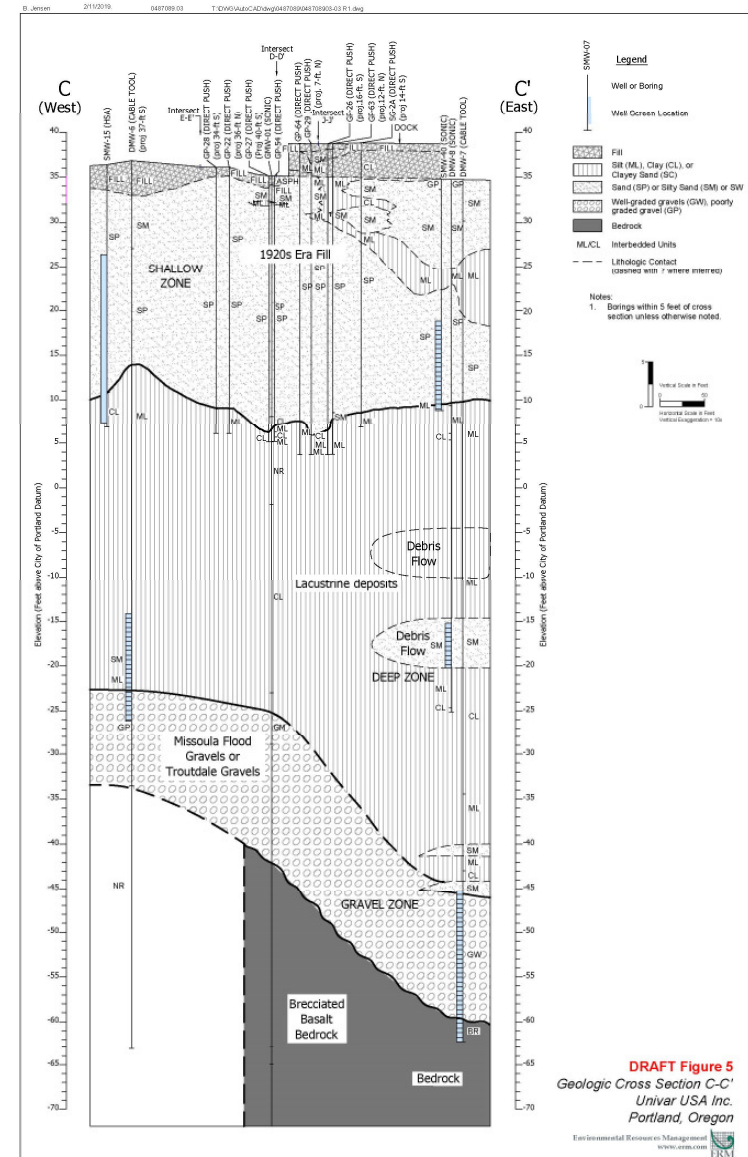




# Gravel Zone Investigation

## Next steps

- Install soil boring at GMW-03 (adjacent to DMW-06)
- If lithology similar to GMW-01, install well at GMW-03 in Gravel Zone above bedrock.
- If lithology not similar to GMW-01, install well at GMW-01.
- Install well at GMW-02.



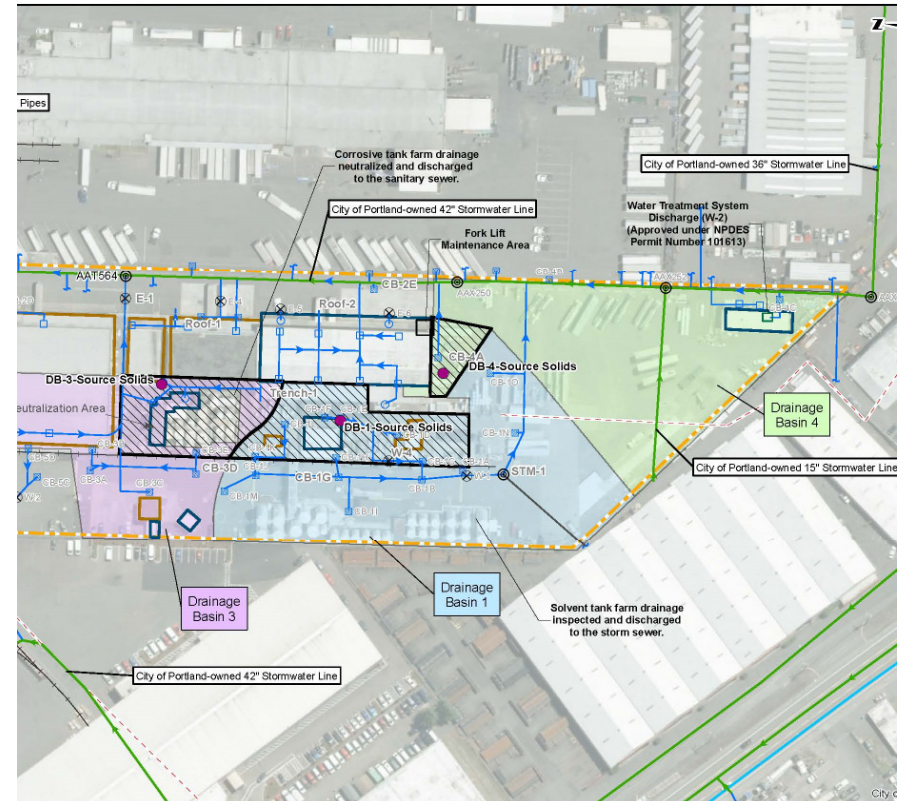
# 1,4-Dioxane Sampling

- EPA-approved sampling
  - Collect dry weather flow sample at COP owned 42-inch storm pipe
  - Collect samples at EXW-1, EXW-5a, and WTS effluent to characterize 1,4-dioxane following implementation of ICM modifications.
  
- Completed 1,4-dioxane sampling in January 2019. Draft results (pending validation) summarized as follows:
  - 3.1 µg/L at EXW-1
  - 119 µg/L at EXW-5a
  - 64.3 µg/L at W-2
  - Non-detect (<1.0 µg/L) in dry-weather flow at AAT564
  
- Submittal to EPA in 2019 Q1 Progress Report.



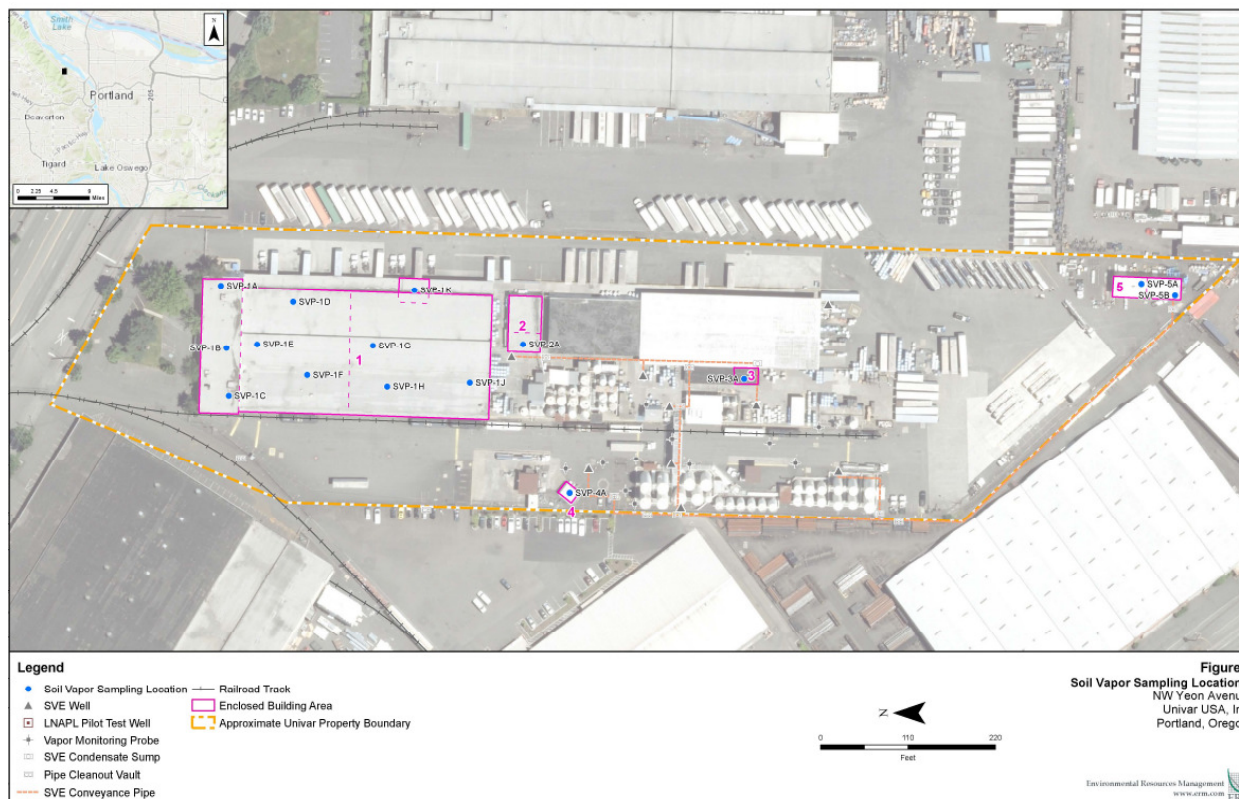
# Stormwater SCM Work Plan

- Site stormwater BMPs in progress
  - Catch basin cleanouts
  - Sweeping
  - Additional BMP implemented to modify trench drain for solids removal.
- Completed source tracing activities
  - Drainage basin survey
  - Wipe sampling
  - Solids sampling
- Stormwater sampling pending qualifying rain event;
  - Attempted sampling on 2/1/2019



# VI Evaluation

- Sample results at or below the Oregon Risk Based Concentrations (RBCs) for soil vapor.
- Phase I memorandum in draft. Submittal to EPA in Q1 2019.





# EPA Comments on 2018 Q4 Progress Report

- › EPA Comments
  - *Adequacy of Hydraulic Control*
  - *Gravel Zone Investigation*
  - *1,4-Dioxane Sampling*
  - *Update to the 1989 QAPP*
  - *Mark-up of the report?*
  
- › Next steps

# Financial Assurance

- › Revised Financial Assurance Bond
  - EPA approved
  - Univar submitted
- › 2019 Updated Cost Estimate
  - Extension request approved by EPA
  - 2019 update pending release of 2017 Q4 price deflators



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10**

1200 Sixth Avenue, Suite 155  
Seattle, WA 98101-3140

OFFICE OF  
AIR AND WASTE

January 30, 2019

Mr. Steven Roach  
Remediation Manager  
Univar USA Inc.  
5200 Bandon Court  
Dublin, Ohio 43016

Re: Approval of Request for an Extension to Due date for the 2019 Updated Financial Assurance Cost Estimate  
Univar USA Inc. Portland, Oregon  
Administrative Order on Consent under the Resource Conservation and Recovery Act Docket No. 1087-10-18-3008(h) (Order)  
EPA ID No. ORD 00922 7398

Dear Mr. Roach:

On January 30, 2019, the U.S. Environmental Protection Agency received an email extension request for the update to the financial assurance cost estimate for the Univar Portland facility. The extension is needed to allow time for release of the 2018 Q4 implicit price deflators for gross domestic product from the Bureau of Economic Analysis. In accordance with paragraph 4.1 of the 2007 amendment to the Order, the extension is hereby approved.



## Next Steps and Action Items

- › Performance monitoring and compliance sampling.
- › ICM optimization (increase blower capacity and air stripping efficiency).
- › Transition pumping scenario (per ICM Modification Request).
- › 2019 Q1 groundwater monitoring (completed week of 2/4).
- › Gravel Zone Investigation.
- › Vapor Intrusion Evaluation.
- › Stormwater SCM Work Plan.

# Questions

- › Next meeting scheduled for April 2019.